GEOLOGICAL LEGEND

LAYERED ROCKS

CENOZOIC

TERTIARY

MIOCENE TO PLIOCENE

MPSv	**SKAGIT FORMATION:** *felsic and intermediate pyroclastic rocks*

LATE OLIGOCENE TO EARLY MIOCENE

OMCv	**COQUIHALLA FORMATION:** *intermediate and felsic pyroclastics and flows*

EOCENE

PRINCETON GROUP

Es	*Sandstone, conglomerate and argillite; includes* **Allenby Formation**

MESOZOIC

CRETACEOUS AND/OR TERTIARY

MSL	**SLOLLICUM SCHIST:** *mainly greenschist-grade mafic to intermediate volcanics, phyllite, minor volcanic and carbonate-clast supported conglomerate; metamorphosed in the Cretaceous*
Ms	*Garnet-biotite, staurolite, kyanite and sillimanite schist, local amphibolite, minor ultramafic rocks and siliceous schist, metamorphosed in Cretaceous; includes* **Settler Schist** *and* **Brokenback Hill Formation**
KTc	**CUSTER GNEISS:** *Granite gneiss with abundant pegmatite dikes, pelitic schist and amphibolite, minor marble and ultramafic rocks, probably derived mainly from Lower Mesozoic and possibly Paleozoic and Precambrian(?) rocks. Metamorphosed in Late Cretaceous and early Tertiary time, the* **Custer Gneiss** *may be a deeper level metamorphic equivalent of the* **Settler Schist (Cayoosh Formation)** *or* **Cogburn Schist**. **Custer Gneiss** *is the suspected source of the anatectic melts which produced the* **Needle Peak** *and* **Outram** *plutons* (Egd)

CRETACEOUS

LOWER TO UPPER CRETACEOUS

PASAYTEN GROUP

KP	*Undifferentiated sandstone, chert-grained sandstone, conglomerate, argillite arkose, minor red beds and tuff; in part probably the non-marine facies equivalent of the* **Jackass Mountain Group (KJ)**

LOWER AND MIDDLE CRETACEOUS

JACKASS MOUNTAIN GROUP

KJ	*Sandstone, argillite, conglomerate; upper part is likely the facies equivalent of the* **Pasayten Group**

LOWER CRETACEOUS (Berriasian to Albian)

GAMBIER GROUP

lKG	*Undifferentiated* **Gambier Group** *volcanic and sedimentary rocks include thick bedded basaltic andesite, dacitic and rhyolitic tuffs, flows and volcanic breccia, greenstone, pillowed basalt, argillite, greywacke, shale, siltstone, basal conglomerate with plutonic clasts and arkose; includes* **Monarch Volcanics, Fire Lake Volcanics** *and* **Goat Mountain, Britannia, Helm, Empetrum, Cheakamus, Brokenback Hill** *and* **Peninsula formations**

JURASSIC

UPPER JURASSIC

THUNDER LAKE SEQUENCE

uJTs	*Sandstone, conglomerate and argillite*
JK	**KENT FORMATION:** *conglomerate, sandstone and argillite*

Lower Oxfordian

JBC	**BILLHOOK CREEK FORMATION:** *intermediate volcaniclastics*

LOWER AND MIDDLE JURASSIC

LADNER GROUP

JL	*Argillite, slate, siltstone, tuff and minor amounts of Upper Jurassic sandstone and conglomerate*
JD	**DEWDNEY CREEK FORMATION:** *sandstone, argillite, local mafic and intermediate volcanics; part of the* **Ladner Group**

Early and Late Toarcian and Younger

JHL	**HARRISON LAKE FORMATION:** *intermediate, locally felsic flows and pyroclastics; local argillite and conglomerate; includes Callovian age* **Mysterious Creek Formation**

TRIASSIC / JURASSIC

LATE TRIASSIC AND/OR EARLY JURASSIC

TJC	**CULTUS FORMATION:** *argillite, sandstone, siltstone, minor carbonate*

TRIASSIC

TSP	**SPIDER PEAK FORMATION:** *mafic volcanics*

MIDDLE TRIASSIC (Ladinian)

TCC	**CAMP COVE FORMATION:** *siliceous argillite, mafic volcanics; possibly the base to the* **Harrison Lake Formation (JHL)**

PALEOZOIC TO MESOZOIC

PMu	*Ultramafic rock, local gabbro*
PMCS	**COGBURN SCHIST:** *Schist, metachert, pelite, amphibolite, marble, ultramafic rock; possible correlative of* **Hozameen** *and* **Bridge River complexes**; *metamorphosed in Cretaceous*

PERMIAN TO JURASSIC

HOZAMEEN COMPLEX

PJH	*Undifferentiated chert, pelite, mafic volcanics, minor limestone, gabbro and ultramafic rock*
PJHv	*Mafic volcanic rocks of the* **Hozameen Complex**

PERMIAN (TO MESOZOIC?)

VEDDER COMPLEX

PMv	*Amphibolite, gneiss, minor ultramafic rock*

PALEOZOIC

DEVONIAN TO PERMIAN

CHILLIWACK GROUP

DPc	*Undifferentiated pelite, sandstone, minor conglomerate, mafic and felsic volcanic rocks; Permian and Pennsylvanian carbonate*

PENNSYLVANIAN TO PERMIAN

PPc	*Carbonates in the* **Chilliwack Group**

PROTEROZOIC AND PALEOZOIC

YELLOW ASTER COMPLEX

PPY	*Metadiorite and gabbro; includes* **Baird Diorite** *on Old Settler Mountain*

INTRUSIVE ROCKS

CENOZOIC

TERTIARY

MIOCENE

Mgd	*Zoned granodiorite, quartz monzonite, tonalite, includes* **Mount Barr Batholith**

OLIGOCENE AND/OR MIOCENE

OMgd	*Zoned granodiorite, diorite, tonalite, quartz monzonite, alaskite; probably the plutonic roots to the* **Coquihalla Formation (OMCv)**; *includes* **Chilliwack Batholith**

EARLY TERTIARY

ETgd	*Granodiorite and lesser quartz diorite; includes* **Yale Intrusions, Sheemahant, Machmell** *and* **Clendenning plutons**
ETi	*Intrusions of intermediate composition; includes* **Yale Intrusions**

MESOZOIC

CRETACEOUS

MIDDLE CRETACEOUS (105-85 Ma)

MKg	*Granite; includes* **Falls Lake Suite** *of the* **Eagle Plutonic Complex**
MKqd	*Variably foliated quartz diorite; lesser granodiorite; includes* **Malaspina, Howe Sound, East Sechelt** *and* **Spuzzum plutons**

JURASSIC

LATE JURASSIC

LJt	*Tonalite;* **Eagle Tonalite** *of the* **Eagle Plutonic Complex** *(includes* **Eagle Gneiss***)*

MIDDLE TO LATE JURASSIC

MLJd	*Hornblende diorite and metavolcanics of the* **Zoa Complex**

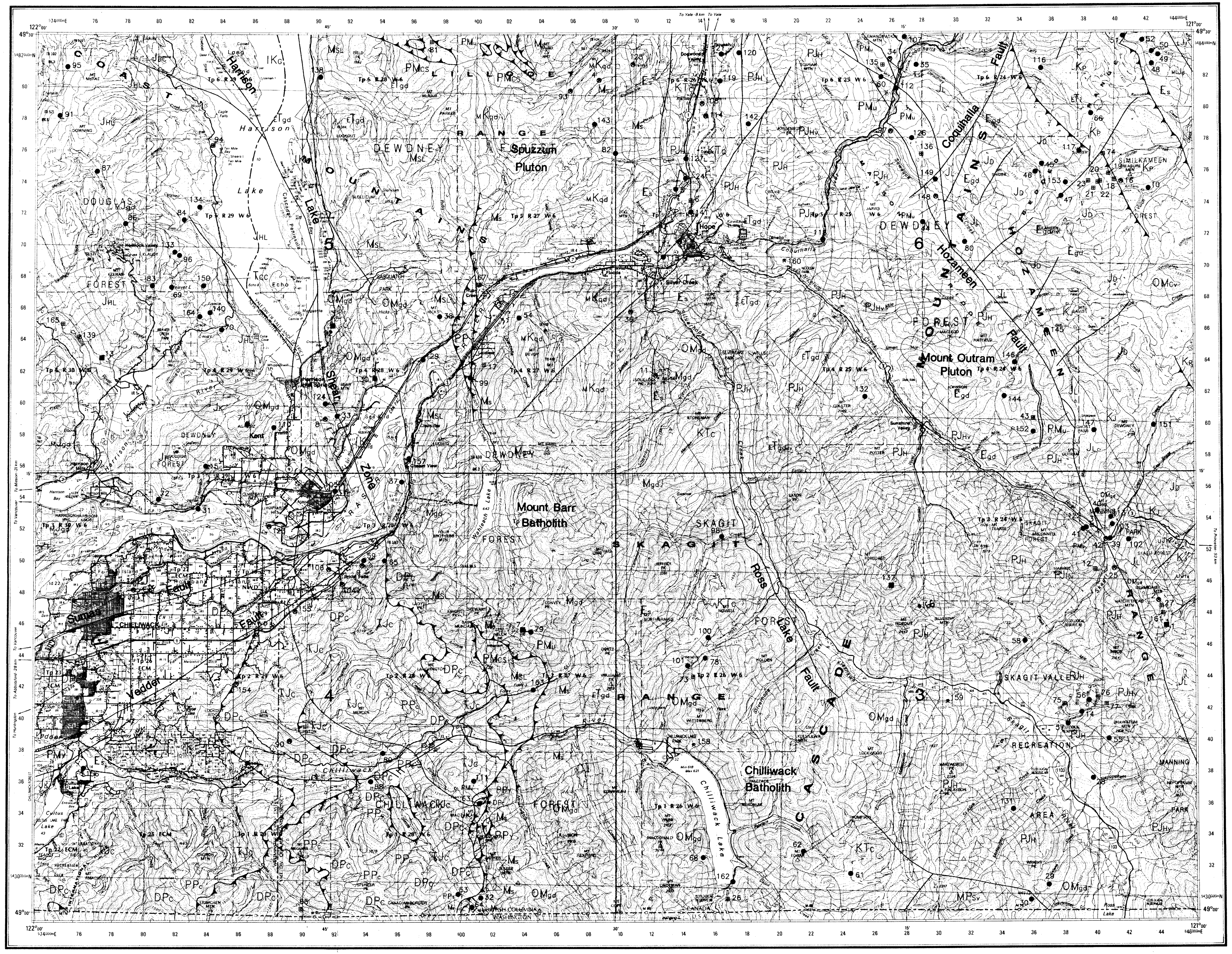
MIDDLE JURASSIC

MJgd	*Granodiorite*

Geological map and legend adapted from:

Bellefontaine, K. and Alldrick, D. (1994): Geological Compilation of the Mid-Coast Area, Southwest British Columbia (Vancouver to Bella Coola), (NTS 92F,G,H,J,K,L,M,N; 93D; 102P; 103A); *B.C. Ministry of Energy, Mines and Petroleum Resources*, Open File 1994-17, 1:250 000.

Monger, J.W.H. (1989): Geology, Hope, British Columbia; *Geological Survey of Canada*, Map 41-1989, sheet 1, 1:250 000.



BC Ministry of Energy, Mines and Petroleum Resources

1895 - 1995 100 YEARS OF GEOLOGICAL SURVEYING

Geological Survey Branch

MINFILE MAP NTS 092HSW CHILLIWACK LAKE

This MINFILE release researched and compiled by: G. Payie, L. Duffet, G. Owsiacki and P. Fischl

Date Revised: **March 1995**

Scale 1:100 000

0 2 4 6 8 10 kilometres

Total Number of Mineral Occurrences: 165

Status

- Producer
- Past Producer
- Developed Prospect
- Prospect
- Showing

124°			118°
51°	092J	092I	082L
	092G	092H (NW, NE, SW, SE)	082E
49°	U S A		

MAP LEGEND - 092HSW

MINFILE NUMBER	NAME	COMMODITIES
001	GIANT COPPER	CU AU AG ZN PB MO UR WO
002	INVERMAY	AG ZN PB AU CU
003	MAMMOTH	NI AG AU CU WO MO
004	PRIDE OF EMORY	NI CU CO AU AG CR PT PD ZN
005	BEA	NI CU
006	MURPHY	CU AG PB WO AU
007	LUCKY FOUR (L.989)	CU MO AG AU
008	EMPRESS	CU AG MO
009	POPKUM LIMESTONE	LS
010	JOHN	AG PB ZN
011	EUREKA-VICTORIA	AG CU PB AU
012	D & J	CU AU AG ZN PB
013	SENECA	ZN CU PB AG AU
014	RUBY	CU AU AG
015	VALLEY VIEW	CU ZN PB AG AU
016	TREASURE MOUNTAIN	AG PB ZN CU AU SB
017	BLUE CHIP	AU AG CU
018	EUREKA (L.1210)	AG PB ZN CU
019	VIGO (L.91)	AG PB ZN CU AU SB
020	BLUE BELL (L.132)	AG PB ZN CU
021	QUEEN BESS	AG PB ZN
022	INDIANA	AG PB ZN CU AU SB
023	SUMMIT	AG PB ZN CU AU SB
024	IDEAL GOLD	CU AU AG
025	SILVER DAISY	AG PB ZN AU CU
026	FAITH	AG PB ZN AU CU
027	JULY	AG AU ZN CU
028	SUNRISE	ZN PB AU AG
029	SUNSET	ZN CU PB AG AU
030	INTERNATIONAL (L.932)	PB CU AU AG UR
031	FAIRPLAY (L.2085)	CU ZN PB AU AG
032	SLESSE CREEK	AU
033	ANNA	CU AG AU
034	EMANCIPATION	AU AG CU PB ZN TC
035	BROKEN HILL	AU AG PB
036	AUFEAS	AU AG CU
037	MARY JANE	MO AU AG CU
038	LAST CHANCE	MO CU AG AU
039	STAR NO. 1	AG AU PB ZN CU
040	FORKS	NI
041	DEFIANCE	NI
042	B.B.	AG AU ZN CU PB
043	MASTER ACE	AU AG CU BI NI PT
044	ST. PATRICK	NI CR AU AG
045	U.S. RAMBLER	AG PB ZN
046	BLACKJACK	AG PB ZN
047	HALL'S	AG PB ZN AU
048	GOLD MOUNTAIN	AG CU PB AU
049	SUPERIOR	AG PB CU AU
050	JOHN BULL	AU AG CU
051	MARSELLAISE	AU AG CU PB
052	SPOKANE	AU
053	QUEEN	AG AU
054	KING	PB
055	STEAMBOAT MOUNTAIN	CU
056	PYRRHOTITE CREEK	CU AU AG SB
057	DEFRIES	CU ZN
058	UTAH	CU
059	DUNDEE	AU AG
060	PACIFIC MINES	AU AG
061	IRON MOUNTAIN	FE SU
062	SILVER KING	PB AU AG
063	MOUNTAIN GOAT	AU CU
064	JUMBO (L.187)	AU AG CU
065	MOUNT CHEAM 2	CU ZN
066	RAINY	ZN CU
067	CLOVER LEAF	TC NI CU AG AU
068	JON	AU AG CU ZN PB
069	LOVE	CU ZN PB AG
070	RYE	ZN CU AU AG
071	NIK	NI CU
072	ASCOT	CU ZN
073	TA	CU MO PB ZN WO AU
074	MORNING STAR (L.131)	AG PB ZN CU AU
075	SKAJIT GIANT	CU AG AU MO
076	NORTH STAR	AU AG ZN CU PB
077	BILLICAN	AG AU ZN PB CU SB
078	ELK HORN	AG ZN PB
079	LUCKY FOUR (EAST)	CU
080	A & W	AU AG CU NI
081	NI	NI CU
082	SWEDE	NI CU
083	IAM	ZN CU PB
084	BRETT CREEK	ZN CU
085	TAN	CU ZN AG PB
086	SKU	CU
087	SF	ZN CU
088	CHILLIWACK RIVER (SOUTH)	LS
089	CHILLIWACK RIVER (NORTH)	LS
090	MOUNT THURSTON	BS
091	TOP	PB CU
092	HARRISON GOLD	AU AG CU ZN PB MO WO BI
093	STAR OF EMORY 3	NI CU CR AU PT PD
094	BIGFOOT	ZN CU AU AG PB
095	KU	ZN CU AG
096	ROBYN	CU ZN PB
097	STEVEN	JD GS DS SZ
098	YOLA CREEK	CU
099	WAHLEACH CREEK	AB
100	HILTON 1,2	CU
101	GREENDROP LAKE	ZN PB
102	CHAPMAN AND WORT	CU AG AU PB ZN
103	SILVER QUEEN	AG PB ZN AU CU
104	ROSEDALE GRANITE	GR DS BS
105	AGASSIZ GRANITE	GR DS
106	CHEAM MARL	MR
107	CAMP	AG AU
108	CHANNEL BAR	AU AG PB ZN
109	COTTERELL	AU AG CU
110	BEE	UR CU CO
111	CHILLIWACK RIVER	AB
112	COQUIHALLA SERPENTINE	AB TC
113	DINGO	MO CU AG AU
114	P.L. 1065	AU AG
115	FRASER ROCKHOUND	AE JD RO GS
116	CEDAR	MN
117	VENUS SILVER	AU PB ZN
118	BRADY	AU
119	RANDEB 1	AU CU AG NI
120	RANDEB 2	AU AG NI
121	RANDEB 3	AU AG NI
122	SUMALLO RIVER	LS
123	AGASSIZ	LS
124	BEAR MOUNTAIN	LS
125	CHOATE	NI CU CR CO
126	COQUIHALLA ULTRAMAFICS	CR NI
127	HOPE FELDSPAR	FD
128	LITTLE MOUNTAIN	BS
129	SEABIRD BLUFF	GR
130	SEABIRD ISLAND	CY
131	SKAGIT RIVER	LS
132	MOUNT COULTER	LS
133	BRETT	ZN CU PB AU AG
134	HOOEY	ZN PB CU AG
135	TAX	NI CO CU
136	TOY	NI CO CU
137	BEAR II	ZN PB CU AG
138	GOLDEN BEAR	CU MO
139	VENT	ZN CU PB AG AU
140	KEIKO	AG PB ZN AU CU
141	HOPE	RD
142	FRASER RIVER	GN
143	ZOFKA RIDGE	SL GN
144	TIMBERWOLF	AU CU
145	BIG RANGE	MO AU AG CU
146	TIMBERLINE	MO CU AU AG
147	FORD	AU AG
148	SOWAQUA CREEK	AU PT
149	JESSI 2	CU AU
150	KURO	CU ZN PB
151	K.C.M.	PB AG ZN CU
152	NEWJAY	AU AG CU PB ZN PT
153	ARGENTUM	AG PB ZN
154	MARBLE HILL TRAVERTINE	TR
155	ROSEBANK MARL LIME	TR
156	CHILLIWACK DIATOMITE	DE
157	VALLEY GRANITE	GR DS BS
158	CHILLIWACK LAKE	GR DS BS
159	SKAGIT VALLEY	GR DS BS
160	HOPE GRANITE	GR DS BS
161	NO. 1	AG PB ZN CU
162	CL	CU
163	TROOPER	CU
164	WR	ZN CU PB
165	FLEETWOOD	ZN CU PB AU
166	Silvertip	ZN PB CU AG

COMMODITY LEGEND

CODE INDEX		COMMODITY INDEX	
AB	Asbestos	Agate	AE
AE	Agate	Antimony	SB
AG	Silver	Asbestos	AB
AU	Gold	Bismuth	BI
BI	Bismuth	Building Stone	BS
BS	Building Stone	Chromium	CR
CO	Cobalt	Clay	CY
CR	Chromium	Cobalt	CO
CU	Copper	Copper	CU
CY	Clay	Diatomite	DE
DE	Diatomite	Dimension Stone	DS
DS	Dimension Stone	Feldspar	FD
FD	Feldspar	Garnet	GN
FE	Iron	Gemstones	GS
GN	Garnet	Gold	AU
GR	Granite	Granite	GR
GS	Gemstones	Iron	FE
JD	Jade/Nephrite	Jade/Nephrite	JD
LS	Limestone	Lead	PB
MN	Manganese	Limestone	LS
MO	Molybdenum	Manganese	MN
MR	Marl	Marl	MR
NI	Nickel	Molybdenum	MO
PB	Lead	Nickel	NI
PD	Palladium	Palladium	PD
PT	Platinum	Platinum	PT
RD	Radioactive Material	Radioactive Material	RD
RO	Rhodonite	Rhodonite	RO
SB	Antimony	Sillimanite	SL
SL	Sillimanite	Silver	AG
SU	Sulphur	Soapstone	SZ
SZ	Soapstone	Sulphur	SU
TC	Talc	Talc	TC
TR	Travertine	Travertine	TR
UR	Uranium	Tungsten	WO
WO	Tungsten	Uranium	UR
ZN	Zinc	Zinc	ZN